AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-22 (canceled)

23. (Currently amended) ~~The carbon flexible heating structure of claim 22,~~ A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and carbon black at a weight rate in a range of 100:1-15 into a particular shape and curing a mixture,

wherein the carbon flexible heating structure is a reinforcing material of a conductive composition filled with short staples; and

wherein the diameter of the short staple is 1 through 50 μm and the short staple is one of a glass fiber, a carbon fiber, and a graphite fiber.

24. (Previously presented) A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and carbon black at a weight rate in a range of 100:l~15 into a particular shape and curing a mixture,

wherein the carbon flexible heating structure has the shape of a mesh, and

wherein the mesh is a fabric made of a woof and a warp and has port portions formed longer than the woof or the warp of the fabric, and the port portions are formed of a conductive metal wire having superior conductivity.

25. (Previously presented) The carbon flexible heating structure of claim 24, wherein the port portions are tin-plated copper wires or silver wires.

Claims 26 and 27 (canceled)

28. (Currently amended) ~~The carbon flexible heating structure of claim 27,~~ A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10-150 into a particular shape and curing a mixture,

wherein the carbon flexible heating structure is a reinforcing material of a conductive composition filled with short staples; and

wherein the diameter of the short staple is 1 through 50 μm and the short staple is one of a glass fiber, a carbon fiber, and a graphite fiber.

29. (Previously presented) A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10-150 into a particular shape and curing a mixture,

wherein the carbon flexible heating structure has the shape of a mesh, and

wherein the mesh is a fabric made of a woof and a warp and has port portions formed longer than the woof or the warp of the fabric, and the port portions are formed of a conductive metal wire having superior conductivity.

30. (Previously presented) The carbon flexible heating structure of claim 29, wherein the port portions are tin-plated copper wires or silver wires.

31. (Previously presented) A carbon flexible heating structure formed by molding a conductive composition obtained by mixing liquid silicon rubber and graphite powder at a weight rate in a range of 100:10-150 into a particular shape and curing a mixture,

wherein insulation coating formed of an insulating mixture obtained by mixing liquid silicon rubber and a diluent and agitating a mixture is provided on a surface of the carbon flexible heating structure.